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SERIAL NUMBER	FLING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/583,062	01/03/96	MURAKAMI T	FURUYA-CASE

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2026 RAMBLING ROAD  
KALAMAZOO MI 49008-1699

'A3M1/0324

**EXAMINER**

THEKORN, E

ART UNIT	PAPER NUMBER
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1306

DATE MAILED: 03/24/97

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined      ☒ Responsive to communication filed on Feb 18, 1997      ☒ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), \_\_\_\_\_ days from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

**Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:**

1. ☒ Notice of References Cited by Examiner, PTO-892. 2. ☐ Notice of Draftsman's Patent Drawing Review, PTO-948.
3. ☐ Notice of Art Cited by Applicant, PTO-1448. 4. ☐ Notice of Informal Patent Application, PTO-152.
5. ☐ Information on How to Effect Drawing Changes, PTO-1474. 6. ☐

## Part II SUMMARY OF ACTION

1. ☒ Claims 2-5 and 7-11 are pending in the application.
- Of the above, claims \_\_\_\_\_ are withdrawn from consideration.
2. ☐ Claims \_\_\_\_\_ have been cancelled.
3. ☐ Claims \_\_\_\_\_ are allowed.
4. ☒ Claims 2-5 and 7-11 are rejected.
5. ☐ Claims \_\_\_\_\_ are objected to.
6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved; ☐ disapproved (see explanation).
12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other \_\_\_\_\_

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The following is a quotation of the first paragraph of 35 U.S.C. § 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification is objected to under 35 U.S.C. § 112, first paragraph, as the specification, as originally filed, does not provide support for the invention as is now claimed. No support for the range of 1.22 to 2.21 can be found.

Claim 10 is rejected under 35 U.S.C. § 112, first paragraph, for the reasons set forth in the objection to the specification.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 2-5, 7, and 8 are rejected under 35 U.S.C. § 102(B) as anticipated by or, in the alternative, under 35 U.S.C. § 103 as obvious over either Okamoto (U.S. Patent No. 4,818,394) or Yuki (U.S. Patent No. 4,786,416). The claims are considered to read on each of Okamoto (U.S. Patent No. 4,818,394) or Yuki (U.S. Patent No. 4,786,416). However, if a difference exists between the claims and each of Okamoto (U.S. Patent No. 4,818,394) or Yuki (U.S. Patent No. 4,786,416), it would reside in optimizing the elements of each of Okamoto (U.S. Patent No. 4,818,394) or Yuki (U.S. Patent No. 4,786,416). It would have been obvious to optimize the elements of each of Okamoto (U.S. Patent No. 4,818,394) or Yuki (U.S. Patent No. 4,786,416) to enhance separation.

Claim 5 is rejected under 35 U.S.C. § 103 as being unpatentable over Yuki (U.S. Patent No. 4,786,416) in view of Okamoto (U.S. Patent No. 4,818,394). At best, the claim differs from Yuki (U.S. Patent No. 4,786,416) in reciting the pore size. Yuki (U.S. Patent No. 4,786,416) calls for a carrier having appropriate voids on column 4, lines 49-50. Okamoto (U.S. Patent No. 4,818,394) (column 3, lines 35-36) discloses an appropriate

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pore diameter is from 10 Angstroms to 100 microns. It would have been obvious to use a pore diameter from 10 Angstroms to 100 microns because Yuki (U.S. Patent No. 4,786,416) calls for a carrier having appropriate voids on column 4, lines 49-50 and Okamoto (U.S. Patent No. 4,818,394) (column 3, lines 35-36) discloses an appropriate pore diameter is from 10 Angstroms to 100 microns.

Claims 9-11 are rejected under 35 U.S.C. § 103 as being unpatentable over either Okamoto (U.S. Patent No. 4,818,394) or Yuki (U.S. Patent No. 4,786,416) as applied to claims 2-5, 7, and 8 above, and further in view of Okamoto (U.S. Patent No. 4,861,872). At best, the claims differ from either Okamoto (U.S. Patent No. 4,818,394) or Yuki (U.S. Patent No. 4,786,416) in reciting use of amylose tris (3,5-dimethylphenyl carbamate). Okamoto (U.S. Patent No. 4,861,872) (column 1, line 25-column 2, line 51) discloses that amylose tris (3,5-dimethylphenyl carbamate) is a cellulose alternative that is easy to prepare and has an excellent chiral discrimination. It would have been obvious to use amylose tris (3,5-dimethylphenyl carbamate) in either Okamoto (U.S. Patent No. 4,818,394) or Yuki (U.S. Patent No. 4,786,416) because Okamoto (U.S. Patent No. 4,861,872) (column 1, line 25-column 2, line 51) discloses that amylose tris (3,5-dimethylphenyl carbamate) is a cellulose alternative that is easy to prepare and has an excellent chiral discrimination.

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Claim 11 is rejected under 35 U.S.C. § 103 as being unpatentable over either Okamoto (U.S. Patent No. 4,818,394) or Yuki (U.S. Patent No. 4,786,416) in view of Okamoto (U.S. Patent No. 4,861,872) as applied to claims 2-5, 7, and 8 above, and further in view of Okamoto (U.S. Patent No. 4,861,872) as applied to claims 9-11 above, and further in view of Okamoto (U.S. Patent No. 4,818,394). At best, the claim differs from Yuki (U.S. Patent No. 4,786,416) in reciting the pore size. Yuki (U.S. Patent No. 4,786,416) calls for a carrier having appropriate voids on column 4, lines 49-50. Okamoto (U.S. Patent No. 4,818,394) (column 3, lines 35-36) discloses an appropriate pore diameter is from 10 Angstroms to 100 microns. It would have been obvious to use a pore diameter from 10 Angstroms to 100 microns in either Okamoto (U.S. Patent No. 4,818,394) or Yuki (U.S. Patent No. 4,786,416) in view of Okamoto (U.S. Patent No. 4,861,872) because Yuki (U.S. Patent No. 4,786,416) calls for a carrier having appropriate voids on column 4, lines 49-50 and Okamoto (U.S. Patent No. 4,818,394) (column 3, lines 35-36) discloses an appropriate pore diameter is from 10 Angstroms to 100 microns.

The remarks urge patentability based upon reciting Mw/Mn to be between 1 and 3. However, Okamoto (U.S. Patent No. 4,818,394) discloses on column 12, line 20 Mw/Mn to be 2.45. Yuki (U.S. Patent No. 4,786,416) discloses on column 6, line 68 Mw/Mn to be

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2.45. As such, the claims are considered to read on each of Okamoto (U.S. Patent No. 4,818,394) and Yuki (U.S. Patent No. 4,786,416).

The remarks urge patentability based upon benefits derived from the recited ratio. However, the benefits are not based upon a difference because Okamoto (U.S. Patent No. 4,818,394) discloses on column 12, line 20 Mw/Mn to be 2.45 and Yuki (U.S. Patent No. 4,786,416) discloses on column 6, line 68 Mw/Mn to be 2.45.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication should be directed to E. Therkorn at telephone number (703) 308-0362.

EGT/7

March 21, 1997



**ERNEST G. THERKORN**  
**PRIMARY EXAMINER**  
**ART UNIT 136**